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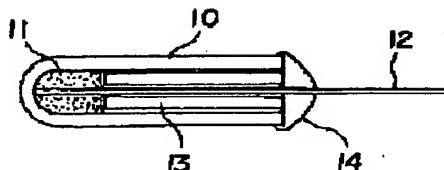
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APPLICATION NUMBER : 05041191

APPLICANT : OSAKA OXYGEN IND LTD;

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TITLE : OXYGEN PROBE



ABSTRACT : **PURPOSE:** To provide an oxygen probe which is excellent in thermal responsiveness by adding/mixing specific metal and a specific quantity of powder of the oxide independently or together to/in a reference pole.

CONSTITUTION: In an oxygen probe having a reference pole 11 containing MoO_2 powder of 4-8 pts.wt. or MoO_2 powder of 3-10 pts.wt. and Mo powder of 4-12 pts.wt. to mixture of 100 pts.wt. containing Cr powder of 80-90 pts.wt. and Cr_2O_3 powder of 20-10 pts.wt., a reference pole lead 12 such as Mo is taken out from the pole 11, and is fixed by a reference pole fixing member 13. The tail end of solid electrolyte 10 is sealed up by a sealing member 14 such as an inorganic adhesive. Since electromotive force between the lead 12 and a measuring pole lead and oxygen activity in melting metal at a temperature measured by a thermocouple can be measured in a short time, an increase in efficiency of a metal refining process and simplification of a probe protective tube can be realized, and since probe soaking time can be also shortened, a holder replacing frequency can be reduced, so that a great economic effect can be obtained.

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